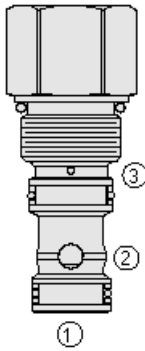




Overview



Description

The EP10-S38 is a screw-in, cartridge style hydraulic directional element

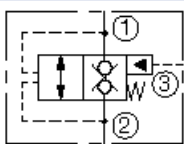
Operation

It is a spring biased poppet valve, which will block port 1 to port 2 or port 2 to port 1 until pressure at port 1 or port 2 exceeds the cumulative pressure at port 3 and bias spring, with no pressure at port 3 flow will be allowed from port 1 to port 2 or port 2 to port 1 once the bias spring force is overcome with pressure at port 1 or port 2. When the element is in closed state the ratio of areas port 1 and port 2 is 1:1 and port 1 or port 2 to port 3 is 1:2

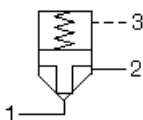
Features

- Multiple function/application potential.
- Low pressure drop.
- Industry-common cavity.

Symbol



OR



Ratings

Pressure Ratings

Pressure rating 345 bar (5000 psi)

Flow Ratings

Flow rating See performance graph
Maximum internal leakage 0.2 ml/min (0.012 in³/min) - **Note:** At 241 bar (3500 psi)

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F)	- Note: With buna N seals - Note: With fluorocarbon seals - Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Other Ratings

Corrosion protection 960 hr salt spray per ASTM b117 (gep10-s38)

Operating Parameters

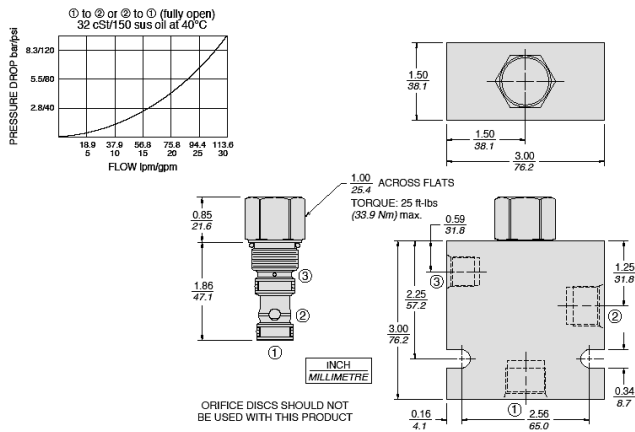
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

Properties

Unit weight	0.15 kg (0.32 lb)
Internal wetted surface area	116 cm ² (18.0 in ²)



Performance



Materials

Materials

Cartridge: Weight: 0.15 kg (0.32 lb) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Ported Body : Weight: 0.32 kg (0.70 lb) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies are available for pressures up to 350 bar (5000 psi); Weight and dimensions may differ.

Installation Specifications

Cavity	VC10-S3
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Orientation restriction	None

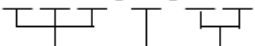
Accessories

Seal kit	SK10-S3X-MM	- Note: X = seal option
Housings		



Order Code

EP10-S38 -



Porting

Cartridge Only 0
SAE 8* 8T
SAE 10* 10T
SAE 12* 12T

*SAE 6 pilot port

Bias Spring

80 5.52 bar (80 psi)
160 11.0 bar (160 psi)

Seals

N Buna N (Std.)
V Fluorocarbon
P Polyurethane (for pressures over
240 bar/3500 psi)

POSITION	CODE	DESCRIPTION
		EP10-S38-H-J-R
H		Line Body
H	0	No Body
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
R		Spring
R	80	80 psi Bias Spring
R	160	160 psi Bias Spring